

1 **WHAT IS CLAIMED IS:**

1 1. A method of removing infectious agents from mammalian soft-tissue,
2 said method comprising subjecting said soft-tissue to extraction with a medium comprising a
3 supercritical fluid, thereby removing said infectious agents.

1 2. The method according to claim 1, wherein said infectious agent is a
2 member selected from the group consisting of viruses, bacteria, mycobacteria, fungus,
3 mycoplasma and prions.

1 3. The method according to claim 2, wherein said virus is a member
2 selected from hepatitis virus, and human immune deficiency virus.

1 4. The method according to claim 2, wherein said prions are causative
2 agents of spongiform encephalopathy.

1 5. The method according to claim 1, wherein said fluid is carbon dioxide.

1 6. The method according to claim 5, wherein the tissue is treated with
2 about 100 to about 500 grams of supercritical carbon dioxide/gram of tissue.

1 7. The method as claimed in claim 6, wherein the tissue is treated with
2 carbon dioxide for a period determined as a function of carbon dioxide flow rate in order to
3 permit passage of about 100 grams to about 500 grams of supercritical carbon dioxide/gram
4 of tissue.

1 8. The method according to claim 7, wherein the tissue is treated with
2 carbon dioxide for a period determined as a function of carbon dioxide flow rate in order to
3 permit passage of about 200 grams to about 400 grams of supercritical carbon dioxide/gram
4 of tissue.

1 9. The method according to claim 6, wherein the supercritical carbon
2 dioxide is applied at a pressure between about 1×10^7 Pa and about 5×10^7 Pa.

1 10. The method according to claim 9, wherein the supercritical carbon
2 dioxide is applied at a pressure between about 2×10^7 Pa and 4×10^7 Pa.

- 1 **11.** The method according to claim **6**, wherein the supercritical carbon
2 dioxide is applied at a temperature between about 40 °C. and about 55 °C.
- 1 **12.** The method of claim **1**, wherein said supercritical fluid is selected from
2 one or more compounds of the group consisting of fluorocarbons, and alkanes.
- 1 **13.** The method of claim **12**, wherein said fluorocarbons is selected from
2 one or more compounds of the group consisting of chlorodifluoromethane and
3 trifluoromethane.
- 1 **14.** The method of claim **12**, wherein said alkanes is selected from one or
2 more compounds of the group consisting of ethylene, propane and ethane.
- 1 **15.** The method of claim **12**, wherein said critical, supercritical or near
2 critical fluid is selected from one or more compounds of the group consisting of nitrous
3 oxide, nitrogen and carbon dioxide.
- 1 **16.** The method according to claim **1**, wherein said animal material is
2 derived from an organ.
- 1 **17.** The method according to claim **1**, wherein said mammalian soft-tissue
2 is nerve tissue.
- 1 **18.** The method according to claim **1**, wherein said mammalian soft-tissue
2 is muscle tissue.
- 1 **19.** The method according to claim **1**, wherein said mammalian soft tissue
2 is adipose tissue.
- 1 **20.** The method according to claim **1**, wherein said mammalian soft-tissue
2 is glandular tissue.
- 1 **21.** A method according to claim **1**, wherein said mammalian soft-tissue is
2 epithelial tissue.
- 1 **22.** The method according to claim **1**, wherein said mammalian soft-tissue
2 is endothelial tissue.

1 **23.** The method according to claim 1, wherein said mammalian soft tissue
2 is myocardial tissue.

1 **24.** The method according to claim 1, wherein said mammalian soft-tissue
2 is vascular tissue.

1 **25.** The method according to claim 1, wherein said animal material is
2 lymphatic tissue.

1 **26.** The method according to claim 1, wherein said animal material
2 comprises respiratory tissue.

1 **27.** The method according to claim 1, wherein said animal material
2 comprises digestive tissue.

1 **28.** The method according to claim 1, wherein said animal material
2 comprises sensory tissue.

1 **29.** The method according to claim 1, wherein said animal material
2 comprises urinary tissue.

1 **30.** The method according to claim 1, wherein said animal material
2 comprises reproductive tissue.

1 **31.** The method according to claim 1, wherein said method further
2 comprises adding a modifier or entrainer to said supercritical fluid.

1 **32.** The method according to claim 31, wherein said modifier or entrainer
2 is a surfactant.

1 **33.** The method as in claim 31, wherein said modifier or entrainer is water.

1 **34.** The method according to claim 31, wherein said modifier or entrainer
2 is an alcohol.

1 **35.** The method according to claim 34, wherein said alcohol is ethanol.

1 **36.** The method according to claim 34, wherein said alcohol is n-propanol.

1 **37.** The method according to claim **31**, wherein said modifier or entrainer
2 is a ketone.

1 **38.** A method as in claim **37**, wherein said ketone is acetone.

1 **39.** A method of treating a mammalian soft tissue with a chemical agent,
2 said method comprising contacting said tissue with a solution of said chemical agent in a
3 supercritical fluid.

1 **40.** The method according to claim **39**, wherein said chemical agent is a
2 fixing agent.

1 **41.** The method according to claim **40**, wherein said fixing agent is an
2 aldehyde.

1 **42.** The method according to claim **41**, wherein said aldehyde is
2 glutaraldehyde.

1 **43.** A method for removing a chemical agent from a tissue following
2 treatment of said tissue with said chemical agent, said method comprising contacting said
3 tissue with a supercritical fluid under conditions that remove said chemical agent from said
4 tissue.

1 **44.** The method according to claim **1**, wherein said infectious agent is
2 selected from the group consisting of nucleic acids, lipids, proteins, and polysaccharides.